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Is the DSM-III-R Category of Mood Disorders too Broad?

Personality Findings

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Summary. In the DSM-III and DSM-III-R the affective or mood category has been widened and mood-incongruent psychotic affective illness (MICPAI) included. The present study was undertaken to determine whether this broad mood category is still homogeneous. Personality factors were used as parameters. Minnesota Multiphasic Personality Inventory findings of 54 patients with MICPAI were compared with those of 21 probands with a DSM-III typical affective disorder and with those of 15 DSM-III schizophrenics. It was shown that MICPAI differed significantly from typical affective disorder, but not from schizophrenia, in particular regarding the subscales "schizophrenia" and "psychopathic deviate". When MICPAI was subdivided into the depressed and manic type, the depressed type was found to be more closely related to schizophrenia (with respect to the subscales "paranoia" and "schizophrenia"), whereas the manic type hardly differed from affective disorder. Whether this result is due to diagnostic inaccuracies is discussed. Our finding that MICPAI differs from typical affective disorder with respect to personality is in accordance with heredity and outcome studies demonstrating that MICPAI is associated with a higher risk for schizophrenia in first-degree relatives and with worse outcomes when compared with typical affective disorder. It can thus be concluded that the decision to include MICPAI in the affective or mood category of the DSM-III or DSM-III-R has rendered this category more heterogeneous.

Key words: DSM-III-R, mood-incongruent features

Introduction

Since the mid-1970s a broad concept of affective disorders prevails in American psychiatry, as, for example, in the DSM-III and DSM-III-R (American Psychiatric Association 1987), in which the mood category encompasses not only episodes without or with mood-congruent psychotic features but also those with mood-incongruent delusions or hallucinations. Thus, in this DSM-III-R mood category, psychotic conditions are now incorporated which used to be diagnosed as schizoaffective illness with affective and schizophrenic symptoms occurring simultaneously. In contrast to this, the DSM-III-R term "schizoaffective" now denotes a syndrome with a different temporal relationship, i.e., "which at one present with both a schizophrenic and a mood disturbance and at another time with psychotic symptoms but without mood symptoms".

Kendler (1991) recently addressed the issue of whether the decision to widen the affective category was justified and reviewed the evidence concerning the nosological position of "mood-incongruent psychotic affective illness" (MICPAI). As validators he used family history, demographic, clinical and biological variables, treatment response and outcome.
Kendler discussed four viewpoints: MICPAI is

1. indistinguishable from typical forms of affective illness,
2. a distinct subtype of affective illness with some characteristic differences from the typical forms,
3. a form of schizoaffective illness in terms of the DSM-III-R and
4. a form of schizophrenia as defined in the DSM-III-R.

On the basis of various studies Kendler rejected viewpoints 1 and 4, found weak support for viewpoint 3 and the results broadly consistent with viewpoint 2. With regard to the differences between MICPAI and the pure forms of affective illness Kendler pointed out that MICPAI was associated with higher rates of schizophrenia in the first-degree relatives and with a worse outcome. Nevertheless, he concluded that the authors of the DSM-III and DSM-III-R were justified in subsuming MICPAI as a subtype under the mood category.

With regard to the personality, which according to Roth and McClelland (1979) may serve as a further validating parameter, MICPAI has as yet not been com-

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pared with other diagnostic categories. In the present study, the hypothesis was tested that, regarding MICPAI, personality findings would show a similar pattern to other validating parameters, as, for example, outcome or heredity.

Methods

Patients with the following disorders were included in the trial:

1. MICPAI. These patients were originally selected according to the Research Diagnostic Criteria for schizoaffective illness, acute and subacute subtype (RDC; Spitzer et al. 1975), which require a duration of episodes of less than 6 months and a complete recovery from previous episodes. Patients thus selected were also positive for the DSM-III MICPAI (The MICPAI category is unchanged from the DSM-III to DSM-III-R.)
2. DSM-III major depressive episode.
3. DSM-III schizophrenia.

After remission of the acute illness, when patients were in a stable condition and showed no psychotic signs or symptoms and were neither depressed nor manic in a clinically relevant degree, the psychological testing was performed. The Minnesota Multiphasic Personality Inventory (MMPI) (Hathaway and McKinley 1977) was chosen, as it was developed on clinical psychiatric patients and as it is now a widely used test. The short version of the MMPI in the German translation by Gehring and Blaser (1982) was applied. It contains 221 items, which are grouped into 36 subscales. Although the testing was carried out after remission of the acute illness, patients were, following Kendell's and DiScipio's (1968) recommendation, instructed orally and in written form (on the test sheet) to answer the questions according to their premorbid condition in order to diminish the possibly confounding influence of the past psychotic state. That this is a valid procedure, has been shown by von Zerssen (1979) and recently by Richter (1991).
The transformation of the raw data into T-values was not necessary, as in this study the MMPI-data of the MICPAI probands were not compared with the norms of a healthy control group, but with the profiles of patients with other psychotic disorders. Thus, in Table 2 and 3, the arithmetic means of the raw data for each subscale are given. Only those subscales are displayed which revealed significant differences between groups. The scale masculinity/femininity could not be taken into account as a gender-dependent calculation would have rendered the size of the subgroups too small. Statistical decisions were based on a canonical discriminant analysis, analyses of variance and Duncan tests.

Results

A total of 99 patients was included in the trial. 54 had MICPAI, 27 with a depressive, 27 with a manic type. The clinical characteristics of these patients as well as those of the affective[1] and schizophrenic patients are given in Table 1. The schizophrenic control group originally consisted of 24 patients. However, only 15 of the 24 patients completed the MMPI. Thus, the data of only these 15 were used for computations.

To determine whether probands of the three diagnostic categories differed with respect to personality features, the MMPI means of different groups were firstly compared by a multivariate test using a canonical discriminant analysis. A highly significant difference was found (Wilks' lambda = 0.102; $F = 1.75$; $df_n = 96.0$; $df_d = 147.6$; $p = 0.001$). It was therefore justified to carry out the following univariate analyses.

In Table 2 the MMPI subscales are displayed which revealed significant differences between the total MICPAI and the other two groups. From the clinical point of view it seems important that the MICPAI group and the schizophrenics scored higher than the affective controls on the subscales "psychopathic deviate", "schizophrenia" and "hypomania".

In Table 3 significant differences are shown that were obtained when the MICPAI group was subdivided into the manic and the depressed type according to the mood change on index admission and the findings then compared with both control groups. As can be seen, more differences between these four groups were found than when comparing the total MICPAI with the other two groups. Moreover, both types of MICPAI were found to differ with regard to various items: on the subscales "paranoia" and "schizophrenia", for example, the schizophrenics and only the MICPAI depressed-type patients differed significantly from the affective controls; on one of the subscales "introversion" MICPAI depressed-type patients showed significantly higher scores

[1] Although the inclusion criterion was DSM-III major depressive disorder, this group will in the following be called the affective control group, as 6 patients were bipolar

Table 1. Patients' characteristics

Characteristics	Mood-incongruent psychotic affective illness		Affective group	Schizophrenic group
	Depressed type	Manic type		
n	27	27	21	15
Mean age (± SD)	41.2 (± 14.5)	29.3 (± 9.7)	48.9 (± 11.9)	36.1 (± 11.9)
% Female	49	55	52	50
% Bipolar (I and II)	26	100	29	
DSM-III cluster A personality disorder	12	2		
Initial Hamilton Score[a]	30.0 (± 7.7)		29.4 (± 7.4)	
Initial BPRS-Score[b]	45.2 (± 13.5)	36.4 (± 15.0)		56.4 (± 10.8)
Initial MRS-Score[c]		32.0 (± 9.0)		

[a] Hamilton Depression Scale (Hamilton 1967)
[b] Brief Psychiatric Rating Scale (Overall and Gorham 1976)
[c] Mania Rating Scale (Young et al. 1978)

Table 2. Comparison of the total mood-incongruent psychotic affective illness (MICPAI) group with affective (A) and schizophrenic (S) controls

MMPI-Subscales	A ($n = 21$)	MICPAI ($n = 54$)	S ($n = 15$)	P
Psychopathic deviate	5.3 ± 5.1	8.4 ± 4.3	10.2 ± 5.6	0.01[a]
Schizophrenia	4.1 ± 3.8	7.5 ± 4.5	8.4 ± 7.5	0.02[a]
Impulsivity	3.4 ± 2.6	4.4 ± 2.3	5.7 ± 4.2	0.05[b]
Self-sufficiency	15.1 ± 5.3	12.0 ± 4.4	11.7 ± 6.3	0.04[a]
Depression (DE)	2.8 ± 2.1	4.3 ± 2.1	4.7 ± 2.7	0.02[a]
Hypomania	5.2 ± 3.4	8.5 ± 3.9	8.4 ± 5.8	0.01[a]
Validity	2.6 ± 2.1	4.5 ± 3.3	6.4 ± 4.7	0.01[b]
Lie	6.0 ± 2.1	4.5 ± 2.4	2.8 ± 3.6	0.00[c]
Correction	11.7 ± 4.9	9.0 ± 4.8	5.5 ± 6.6	0.00[d]
Delinquency	2.0 ± 1.2	2.7 ± 1.3	3.0 ± 1.0	0.02[a]
Prejudice	4.5 ± 2.4	5.3 ± 2.2	6.7 ± 3.0	0.04[b]

Post-hoc Duncan Test:
[a] MICPAI, S vs A; [b] S vs A; [c] MICPAI vs S vs A; [d] MICPAI, A vs S

Table 3. Comparison of the mood-incongruent psychotic affective illness groups, depressed (MICPAIDT) and manic type (MICPAIMT), groups with affective (A) and schizophrenic (S) controls

MMPI-Subscales	A ($n = 21$)	MICPAIDT ($n = 27$)	MICPAIMT ($n = 27$)	SD ($n = 15$)	P
Dominance	7.4 ± 2.1	5.3 ± 2.5	6.7 ± 3.0	6.4 ± 2.7	0.05[a]
Psychopathic deviate	5.2 ± 5.1	8.6 ± 3.7	8.3 ± 4.8	10.2 ± 5.6	0.02[b]
Paranoia	4.6 ± 3.6	7.6 ± 4.6	5.5 ± 3.0	7.5 ± 5.3	0.04[c]
Schizophrenia	4.1 ± 3.8	8.5 ± 4.8	6.5 ± 3.9	8.4 ± 7.5	0.02[c]
Factor A	6.4 ± 5.8	10.1 ± 4.5	6.3 ± 4.6	8.8 ± 6.9	0.03[d]
Hostility control	5.3 ± 2.7	6.8 ± 2.8	5.0 ± 5.6	7.5 ± 3.1	0.01[e]
Leadership	20.1 ± 6.5	15.4 ± 5.2	19.2 ± 5.3	16.3 ± 7.3	0.02[c]
Self-sufficiency	15.1 ± 5.3	11.0 ± 3.9	13.0 ± 4.7	11.7 ± 6.3	0.03[c]
Depression (DE)	2.8 ± 2.1	4.7 ± 1.9	3.8 ± 2.2	4.7 ± 2.7	0.02[c]
Introversion	3.9 ± 3.0	6.4 ± 2.6	4.0 ± 2.5	4.5 ± 3.6	0.01[f]
Hypomania	5.2 ± 3.4	8.7 ± 3.9	8.3 ± 3.8	8.4 ± 5.8	0.02[b]
Social introversion	8.1 ± 5.7	12.3 ± 4.0	8.3 ± 4.7	10.3 ± 5.4	0.01[d]
Validity	2.6 ± 2.1	5.6 ± 3.9	3.3 ± 2.0	6.4 ± 4.7	0.00[g]
Lie	6.0 ± 2.1	4.4 ± 2.4	4.5 ± 2.4	2.8 ± 3.6	0.00[h]
Correction	11.7 ± 4.9	7.6 ± 4.4	10.4 ± 5.0	5.5 ± 6.6	0.00[c]
Delinquency	2.0 ± 1.2	2.9 ± 1.1	2.5 ± 1.4	3.0 ± 1.0	0.03[c]
Prejudice	4.5 ± 2.4	5.9 ± 2.1	4.7 ± 2.2	6.7 ± 3.0	0.02[e]

Post-hoc Duncan-test:
[a] MICPAIDT vs A; [b] MICPAIDT, MICPAIMT, S vs A; [c] S, MICPAIDT vs A; [d] MICPAIDT vs MICPAIMT, A; [e] MICPAIMT, A vs S; [f] MICPAIDT vs MICPAIMT, S, A; [g] S, MICPAIDT vs MICPAIMT, A; [h] A vs MICPAIDT, MICPAIMT vs S

than MICPAI manic-type probands and the affective controls.

As can also be seen in Tables 2 and 3, there were differences between groups with respect to the validity (F), the correction and the factor A scales. These so-called control scales were incorporated into the MMPI by Hathaway and McKinley (1977) to examine the validity of the whole test. According to these authors a high score, for example, on the F (validity) scale indicates that the whole test may be invalid. However, several authors (Gehring and Blaser 1982; McCrae and Costa 1983; Koss et al. 1976) have recently argued that this procedure – examining the validity of the clinical by the control scales – is not legitimate, as the control scales also contain items which reflect pathological conditions. In the F-scale, for example, items such as paranoia, psychopathic deviate or general maladjustment are incorporated. There is thus an overlap between the clinical and the control scales. Moreover, in our study, as shown elsewhere (Sauer et al. 1989), high correlations between the clinical and the control scales became apparent. It is therefore justified to use the control as clinical scales and to interpret high scores on the control scales as evidence for psychic abnormality.

Discussion

The findings of this study must be considered tentative, since patients were not investigated before the onset of the illness, as in the recent study by Angst and Clayton (1986). A further shortcoming is that it was not docu-

mented by clinical rating that the psychological testing was only carried out when the acute psychoses had remitted. Moreover, although in this explorative study many traits were measured, the so-called α-correction (Hays, 1973) was not carried out in order to minimize type II errors, which is particularly important, as the subgroups in our study were rather small. Despite these shortcomings, it seems justified to report the following findings, as they are in accord with our clinical evaluation:

The data indicate that, with regard to the personality, the MICPAI group as a whole showed greater similarities with the schizophrenic than with the affective controls. As MICPAI can also be classified as a schizoaffective illness, our findings are thus broadly consistent with earlier investigations of von Zerssen (1982) that ICD schizoaffectives resemble schizophrenics. The most important similarities found in our study concerned the subscales "psychopathic deviate" and "schizophrenia", on which both the schizophrenics and the MICPAI patients differed significantly from the affective controls. Whereas these differences are plausible from a clinical point of view, it seemed contradictory to find the affective control group to have lower scores than the other two groups on the subscale "depression (DE)". A closer look at the individual items of this subscale reveals, however, that they are heterogeneous and in our view of low specificity. The findings with regard to the subscale "hypomania" are also only partially in accord with our clinical judgment; that the scores of the patients with typcial affective illness on this scale were lower than those of the MICPAI group probably reflects the fact that the affective controls were less frequently bipolar (29%) than the MICPAI group (63%). It is, however, difficult to interpret why on this subscale the affective control group also presented with lower scores than the schizophrenics. Yet the items of the subscale "hypomania" appear unspecific as well.

When the MICPAI group was subdivided into the manic and the depressed type, a more complex picture emerged. Most of the differences appeared between the schizophrenics and the MICPAI depressed-type patients on the one hand and the affective controls on the other, for example regarding the subscales "paranoia" and "schizophrenia" on which the former groups showed higher scores. In contrast to the depressed type of MICPAI, the manic type hardly differed from affective illness. It can thus be concluded that the differences between the total MICPAI and the affective control group mainly reflect the personality features of the MICPAI depressed-type subsample. Our findings moreover suggest that the personality of MICPAI patients is heterogeneous, which is in accord with more recent findings of Pössl and von Zerssen (1990) in patients with ICD schizoaffective illness and with the results of Marneros et al. (1988) who found schizoaffectives to be either obsessoid, sthenic-high confident or asthenic-low confident.

The finding that the depressed type of MICPAI is more closely related to schizophrenia, whereas the manic type showed similarities with affective illness, seemed paradoxical at first sight. Yet the psychometric data presented correspond with our clinical judgement: the depressed MICPAI subgroup contained more patients ($n = 12$) with a DSM-III personality disorder of the cluster A (paranoid, schizoid, schizotypal) than the manic subgroup ($n = 2$). Although the question of personality disorders in the different categories must be more thoroughly investigated, our findings are in accord with other studies using different validating parameters; Brockington et al. (1980a, b) and also May et al. (1985), for example, demonstrated worse outcomes in schizodepression than in schizomania, which, however, could not be confirmed by Angst (1989) in a long-term investigation. In a family study, Andreasen et al. (1987) found the depressed but not the manic type of schizoaffective illness to be associated with an increased risk for schizophrenia in the relatives, which is at variance with Maier et al. (1991). It can be hypothesized that these conflicting data are due to classifaction difficulties. As pointed out by Angst (1989), it is more difficult to differentiate depression than mania from schizophrenia because of possible negative and drug-induced extrapyramidal symptoms [see also Berner and Lenz (1986) and Richter et al. (1990)]. This would explain that in some classificatory systems the depressed type of MICPAI or schizoaffective illness is more broadly defined than the manic type (Vogl and Zaudig 1985) and that in validating studies a closer relationship between MICPAI, depressed type, and schizophrenia became apparent. It is unresolved, however, whether all the differences between both forms of MICPAI are the consequences of classification inaccuracies (Sauer 1990).

As pointed out by Kendell and Gourlay (1969) and Kendell and Brockington (1980) in two major studies, there is no clear-cut evidence for a phenomenological discontinuity or for "natural boundaries" between the different types of endogenous psychoses. Thus, any definition of clinical syndromes is to a certain extent arbitrary and attempts to validate clinical boundarys between psychotic syndroms have up to now not been successful, in particular with regard to schizoaffective psychoses. When, in DSM-III, the affective category was widened and a part of schizoaffective psychoses as MICPAI included, the former controversy about the proper definition of schizoaffective psychoses decreased and a clarification in the diagnostic process seemed to have been achieved. However, as in recent studies it has been shown that MICPAI differs from the typical forms of affective illness regarding heredity, outcome and, according to our findings, also with respect to personality, it has become apparent that the classification shift was carried out at the expense of making the affective category more heterogeneous.

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